Please see the local LEED projects in the news below..... Hats off to Hastings Architect Associates and Vanderbilt University!! There are also several other Nashville LEED projects in the development, in addition to those mentioned here, including the mixed use site at Fifth and Main under development by our BOB partners Affordable Housing Resources. It's great to see sustainable building really coming into its own in our watershed!! ~ Gwen

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Green Day

Environmentally friendly design makes its way to the local landscape

by Claire Suddath

In a perfect world, we would not recycle. At least not in the way we do it today. When soda cans are recycled, their aluminum is melted along with the paint and coating used to color them, and the resulting product is actually weaker. Recycled paper requires extra bleaching to make it blank again. Eco-friendly clothing is sometimes advertised as being made from recycled plastic bottles. But consumers don't realize that those bottles may contain toxins and antioxidants that were never designed to be woven into fabric that would touch human skin.

The current recycling system trades one set of problems for another. Most of the products we recycle were never designed to be reused in the first place. But what if they were? That is the foundation of green design, a new line of thought that seeks to create buildings, products and services that minimize environmental impact from the beginning. While green design principles apply to all aspects of life, so far, they have been incorporated perhaps most successfully into architecture.

What if you lived or worked in a building that took advantage of wind direction and the position of the sun? Large windows could decrease the need for artificial daytime light. A specially designed roof would contain heat in winter and deflect the sun's rays in the summer. Drainage systems would filter rainwater and use it to irrigate landscaping, cutting down on outside water costs.

The country's first green apartment building went up in New York City in 2003, and what was once environmentally progressive has turned downright trendy. But what makes a building "green," and how can its greenness be measured? The U.S. Green Building Council tackled that question when it developed a rating system called LEED (Leadership in Energy and Environmental Design). Buildings earn points for environmentally friendly aspects and are then rated on a scale: certified, silver, gold or platinum. Projects seeking certification might use local building materials to reduce transportation energy. If trees are cleared to make room for a new structure, points can be earned if the wood is used for building material. The LEED system isn't perfect—installing a bike rack in a building will earn you a point—but it does require proof for all of a building's green design claims.

Right now, Nashville claims only one LEED-certified building, the offices of Hastings Architect Associates on Third Avenue South. But ground has already been broken on the next project, Terrazzo, a 15-story residential building in the Gulch, set to open in 2008.

Terrazzo has already been LEED pre-certified silver, and boasts amenities such as 40 percent reduced water consumption, 11-foot ceilings and large windows to let in the daylight, and Energy Star appliances from KitchenAid's reduced-energy line. Floors will be made of bamboo, an easily replenished resource. A filtration system will capture stormwater in cisterns, clean it and use it to irrigate the development's landscaping.

"When we decided to go for LEED certification, we thought it would be much more difficult," says Bill Barkley, president of Crosland Tennessee, the real estate company heading the project. Terrazzo is his first truly green project. "We thought we'd have limited options for building materials—only one type of counter or floor. But green design is so popular now that more and more manufacturers are offering supplies that meet LEED standards. It turns out that we were completely wrong."

In the LEED Terrazzo model on view at L & C Tower

By the time Terrazzo opens in 2008, it may already have another LEED-certified neighbor in Nashville. Vanderbilt University has erected facilities for its new undergraduate residential college system, The Vanderbilt Commons, and should become silver-certified in the next few months. "Students actually pushed for this to happen," says Baird Dixon, principal of Street Dixon Rick Architects, the firm that designed The Commons. "There has been a kind of growing environmental consciousness on campus, and students expressed a desire for Vanderbilt to have a proactive stance." The Commons will use recycled building materials and environmentally friendly paints, varnishes, carpet and sealants. Two of the five buildings have already been completed and are occupied by current freshmen.

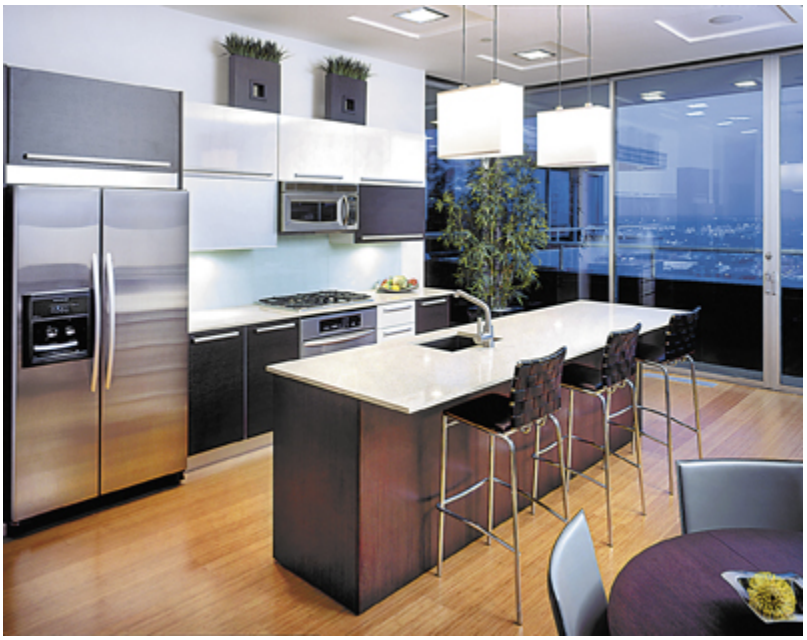
LEED certification is only one way to pursue green design. Smaller, simpler projects can be implemented in existing buildings to increase energy efficiency or indoor air quality. The most visible and progressive feature is the green roof—literally, a roof covered in plants. But before you throw some sod over your shingles, think again. Green roofs are complex systems that incorporate structural support, waterproofing (you don't want plant water leaking through your ceiling), drainage and vegetation. Green roofs trap heat in the winter

and dispel the sun's rays in the summer, lowering a building's heating and energy costs. Chicago leads the pack, with more than 200 green roofs on everything from Mayor Richard Daley's city hall to the top of a McDonald's. Nashville has a few green rooftops, including part of a parking garage and the Neuhoff Building, the former meatpacking plant in Germantown.

If moving your garden on top of your house sounds like too much effort, you can try a simpler approach in your backyard. Instead of the traditional raised flowerbed, try a concave garden bed filled with native plants.

"Most suburban landscape is designed so that rainwater flows out of a yard and down a drain," explains Dodd Galbreath at the Tennessee Department of Agriculture. "People have to water their lawns regularly just to keep them irrigated. Traditional flower beds are dome-shaped so the water runs right off them, but inverted beds trap the water and allow it to percolate naturally." Since rainwater mixes with waste and chemicals when it enters a city's drainage system, inverted flower beds will keep it cleaner. And they'll decrease a homeowner's lawn care bills. Galbreath encourages the use of native plants to maintain the local ecosystem.

"I'm not talking about plants that look like weeds or don't have flowers," he says. In fact, local nurseries like Fairview's Nashville Natives have designed native hybrids that combine a plant's preference for Tennessee soil and weather with the aesthetic coloring and flowers that homeowners prefer. You don't have to have a garden full of thistles and thorns just to be environmentally friendly.



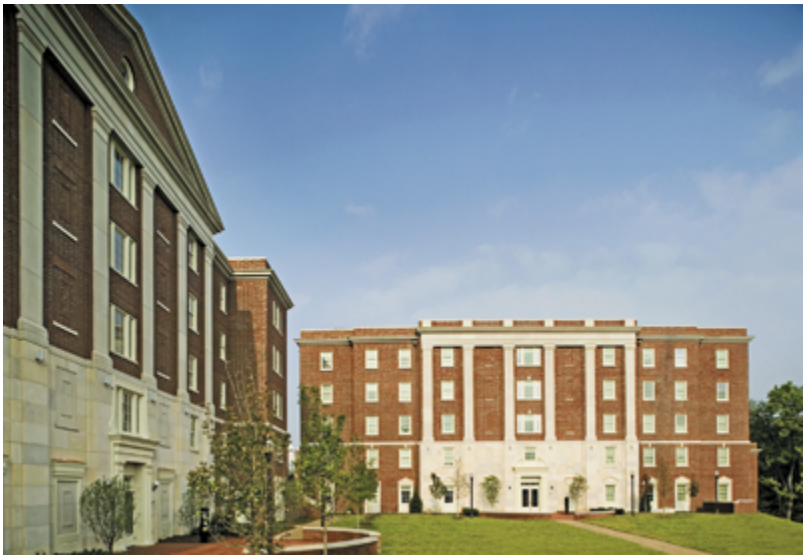
If you are renovating your house, most building contractors are familiar with green products and can help you choose a countertop or floor that was either made locally or with environmentally friendly materials. "Paint products are an easy solution too," says Roe Elam, a founding member of the Tennessee Fund for Sustainability. "Back in the day, you had paint

products that would give off fumes into new buildings. They were horrible for offices or daycare facilities. Now just about every type of paint you buy is better."

The ultimate goal of green design is to create an overall system of living that preserves the Earth for future generations. If our buildings can filter their own rainwater, our roofs help heat and cool us, and our soda cans recycle into new soda cans, we will free up more energy and resources to use down the line. "There used to be this sense that if you cared about the environment you drove a Beetle painted 10 different colors," Galbreath says. "But now, with the price of gasoline getting higher and higher, it just makes sense to people. It's economically feasible now."

We will probably never become a completely green nation or planet. To change every building in every city would require a nearly unimaginable level of dedication and money. Governments can't force people to install green roofs or dig inverted flowerbeds. Most green products still have a higher frontload cost, but as more and more products enter the market, the price difference between choosing a green product and a traditional one will become more manageable.

"Terrazzo's green principles are not what drive people to buy our condos, we've found," admits Bill Barkley, who claims that LEED certification only added 1 to 2 percent to the total building cost. "Most of our buyers are drawn in by the urban lifestyle and artistic design of the building. When we tell them about the building's LEED certification, it just becomes an added incentive."



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